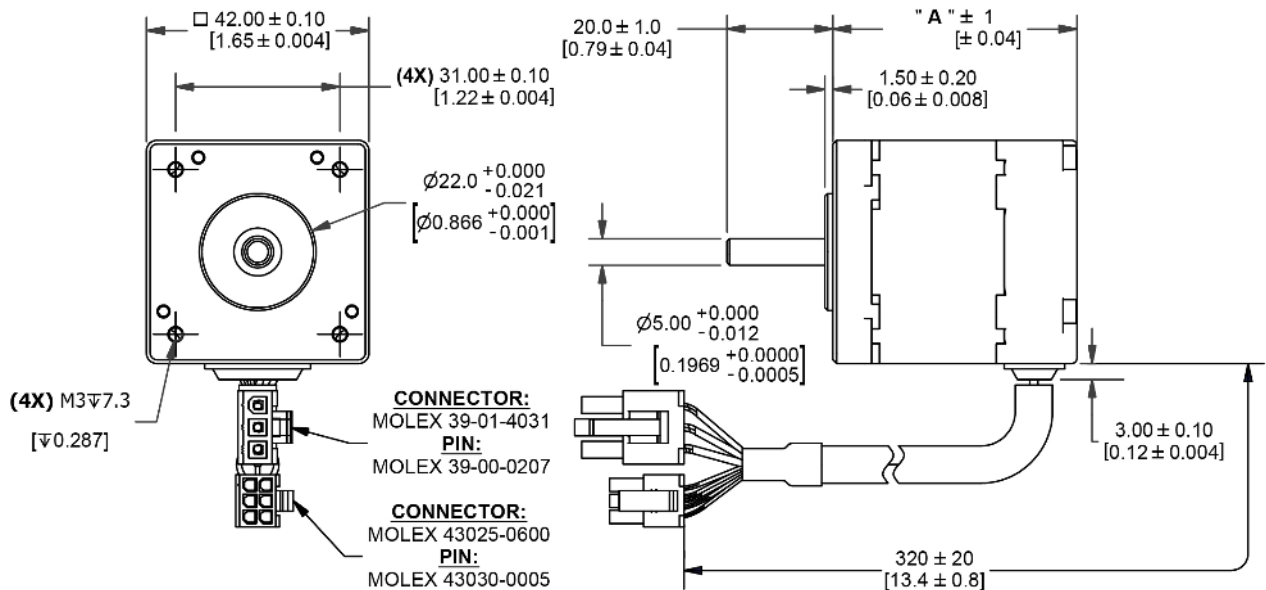


Motor Specifications

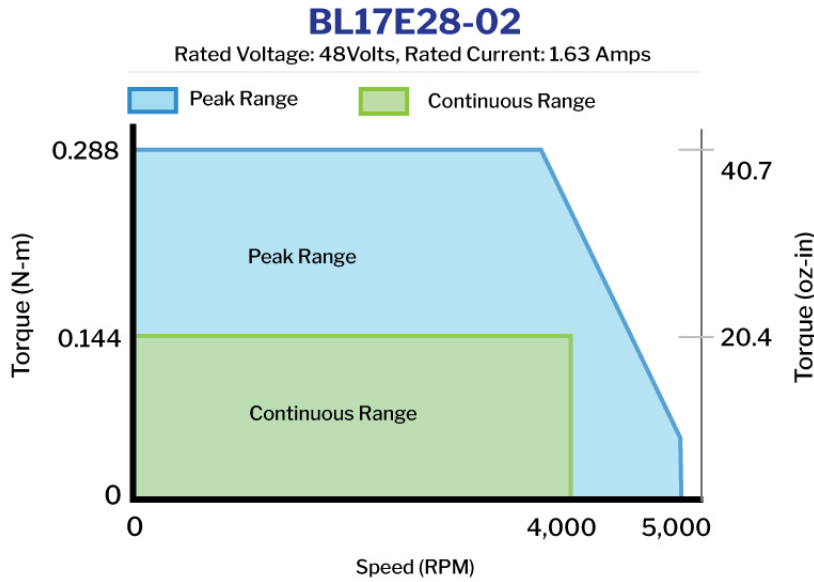
| | |
|--------------------------|-----------------------------|
| Part Number | BL17E28-02-R0 |
| Dimension "A" Max | 2.8 in [71mm] |
| Rated Voltage | 48 VDC |
| Rated Torque | 203.92 oz-in [1.44N-m] |
| Rated Speed | 4000 RPM |
| Rated Power | 60 Watts |
| Rated Current | 1.63 Amps |
| Peak Torque | 40.7 oz-in [0.288N-m] |
| Peak Current | 3.26 Amps |
| Torque Constant (kt) | 12.46 oz-in/Amp |
| Back EMF Constant (Ke) | 8.46 Vp/KRPM |
| Motor Constant (Km) | 7.7 oz-in/√W [0.054 N-m/√W] |
| Resistance | 2.62 Ohms |
| Inductance | 2.5 mH |
| Rotor Inertia | 0.39 oz-in ² |
| Weight | 1.21 lb [0.55 kg] |
| Electrical Time Constant | 1 ms |
| Mechanical Time Constant | 2.7 ms |



Dimensions



Performance Curve



Motor Operating Specs.

| | |
|-------------------------------|--|
| Hall Effect Angle | 120° electrical Angle |
| Radial Play | 0.002 in [0.05 mm] @ 99.9 lbs [45.00 kg] |
| End Play | 0.003 in [0.08 mm] @ 99.21 lbs [45.00 kg] |
| Max. Radial Force | 0.394 in [10.00 mm] @ 3.37 lbs [1.53 kg] |
| Max. Axial Force | 2.25 lbs [1.02 kg] |
| Insulation Class | Class B |
| Dielectric Strength | 500 VDC for 1 minute |
| Insulation Resistance | 100 Ω min, 500 VDC |
| Ambient Operating Temperature | -20°C to 50°C |
| Storage Temperature | -20°C to 100°C |
| Humidity Range (%) | 85% (RH) non-condensing |
| Direction of Rotation | CCW |

Recommended Products



BLDC DRIVER
BLDC50-BL17E28-02



BLDC EXTENSION CABLE
4201-100/300

Pin Out Charts

| PIN # | COLOR | PHASE |
|-------|--------|-----------|
| 1 | RED | VCC (+5V) |
| 2 | YELLOW | HV |
| 3 | BLUE | HW |
| 4 | BLACK | GND |
| 5 | ORANGE | HU |

| PIN # | COLOR | PHASE |
|-------|--------|-------|
| 1 | BLUE | W |
| 2 | ORANGE | U |
| 5 | YELLOW | V |

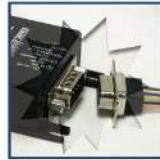
Operation & Usage Tips



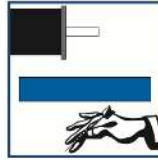
Do not disassemble motors; a significant reduction in motor performance will occur.



Do not machine shafts; this will have a negative effect on shaft run out and perpendicularity.



Do not disconnect motor from drive while in operation.



Do not use holding torque/detent torque of motor as a fail safe brake.



Do not hold motor by lead wires.



Do not exceed the rated current; this will burn the motor.

FAILURE TO COMPLY WITH THESE RECOMMENDATIONS WILL VOID ALL WARRANTY TERMS

Motion Control, **Solved.**

MOTOR ENGINEERING & MANUFACTURING



Optimized
For Your
Application



Quick
Prototype
Turnaround



Small Batch
to OEM Volume
Production



US Based
Support &
Manufacturing